

Communication Superhighway

Hybrid Fiber/Coaxial Network
and
New NSFNET Architecture

Frank Liu
(510)867-6167
Fax: (510)867-1405
fcliu@pacbell.com

U.S. Internet

Three-Tier Structure

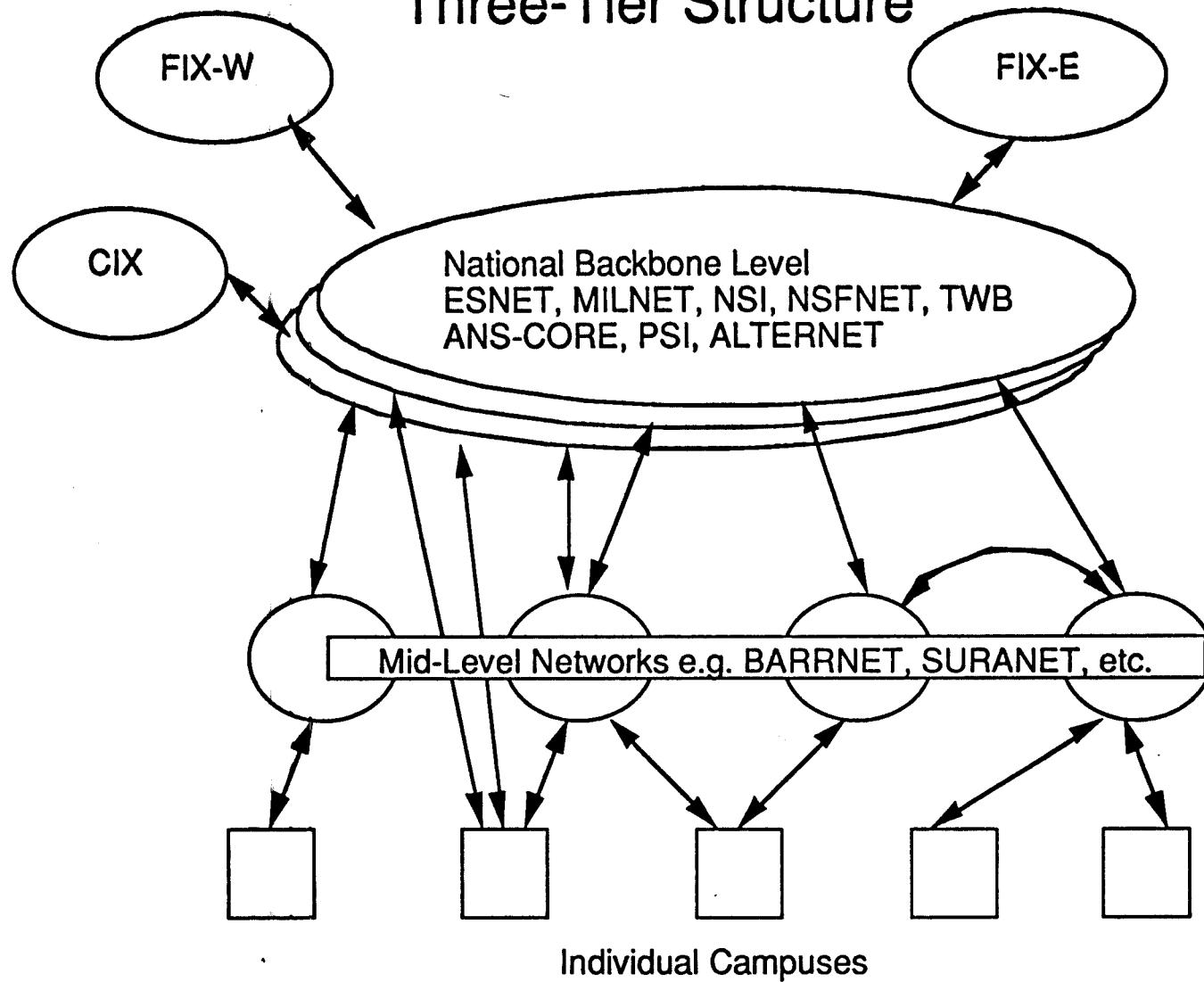


Figure 1

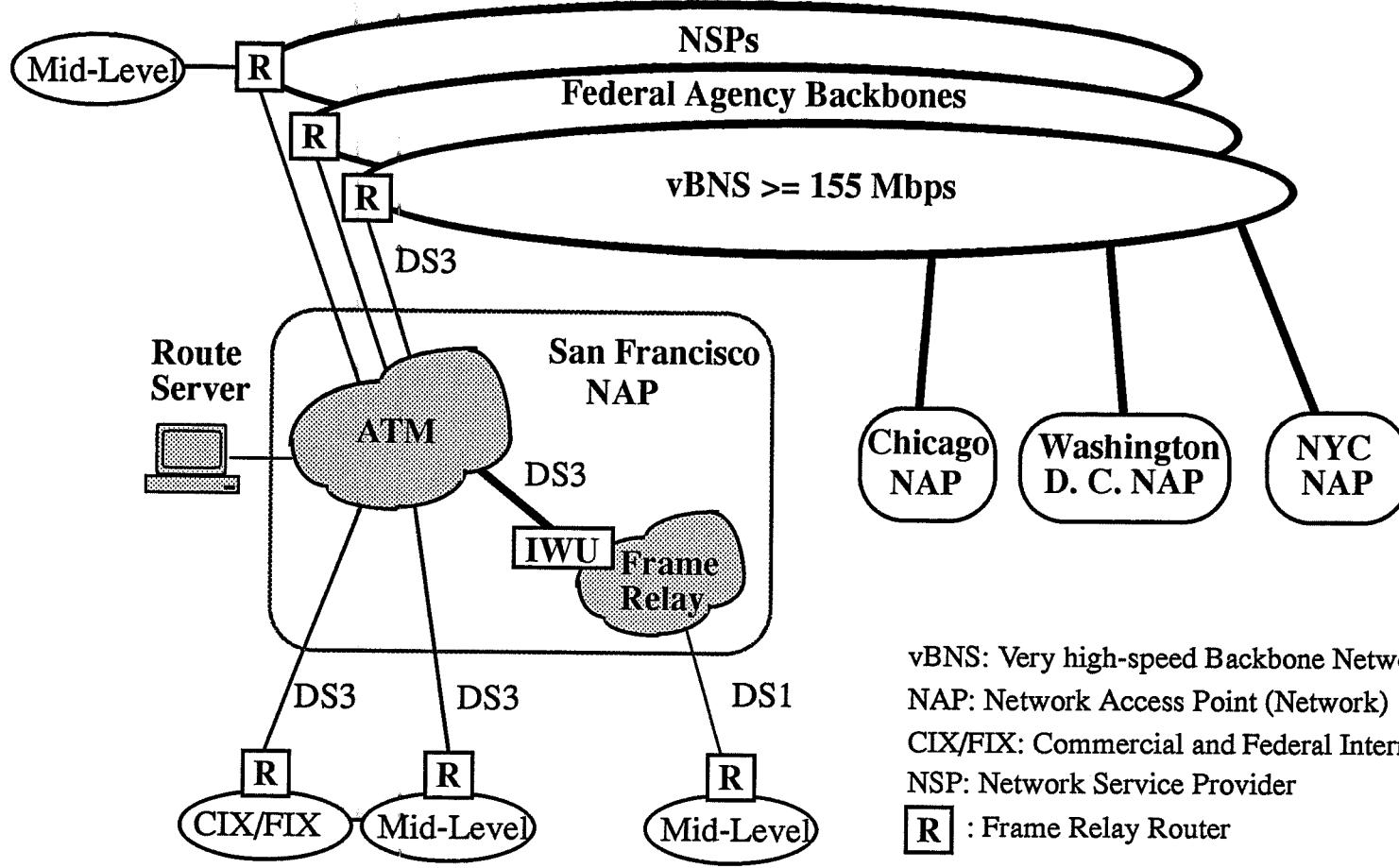


Figure 1. Phase 1 California NAP Topology

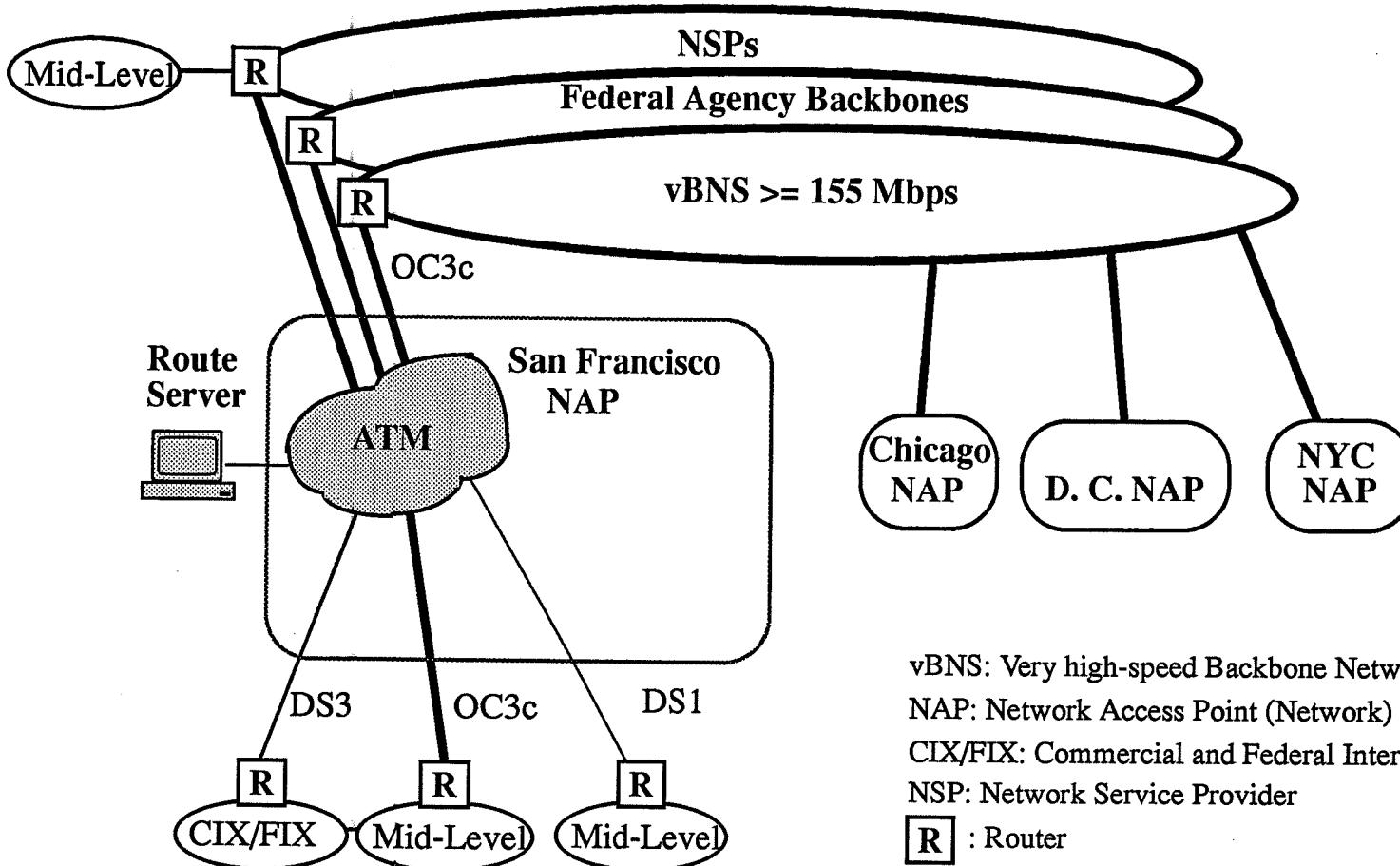
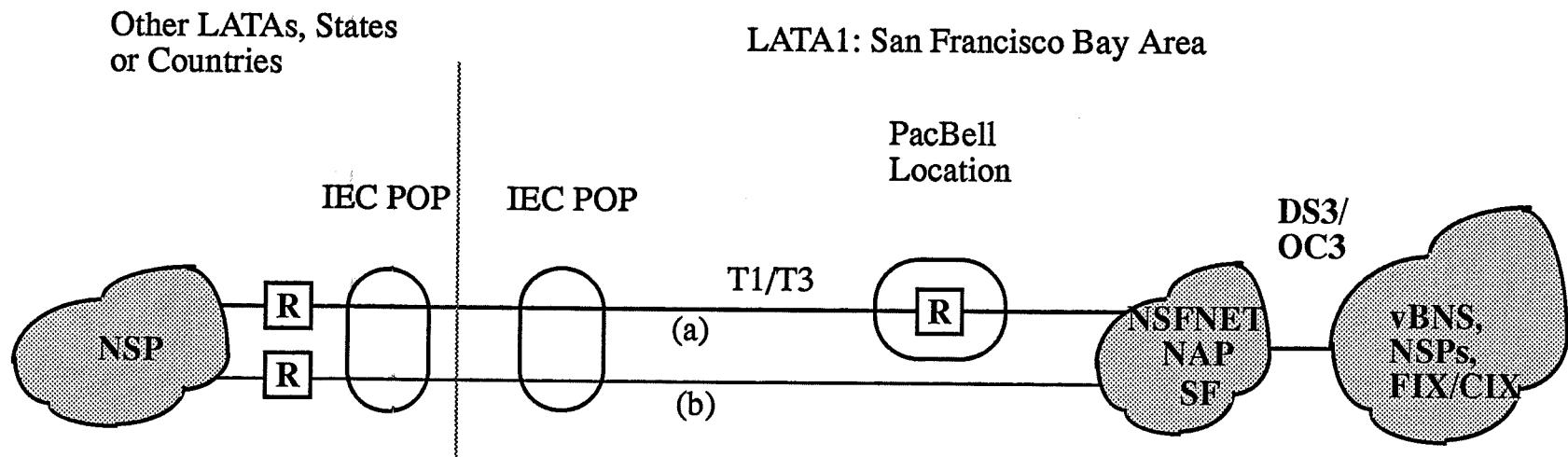


Figure 2. Phase 2 California NAP Topology

Pacific Bell NAP Features

- ATM/SMDS Technologies - low network latency
- Access speeds range from 1.5 Mbps to 155 Mbps
- Multiple network protocol interoperability - e.g. Ethernet, FDDI, ATM
- Virtual POPs (Point Of Presence) within a LATA
- Attractive pricing - mileage insensitive flat monthly rate
- Multiple NSP/midlevel networks access and selection
- Public network - no access denial
- NAP and enterprise network sharing
- Video capability



NSP: Internet Network Services Providers
 FIX/CIX: Federal and Commercial Internet eXchange
R : router and DSU/CSU

Figure 4. NSP Connection from other LATAs
 (a) with Service Colocation, (b) without colocation

California First

Pacific Bell's
Communications Superhighway

What is the Communications Superhighway?

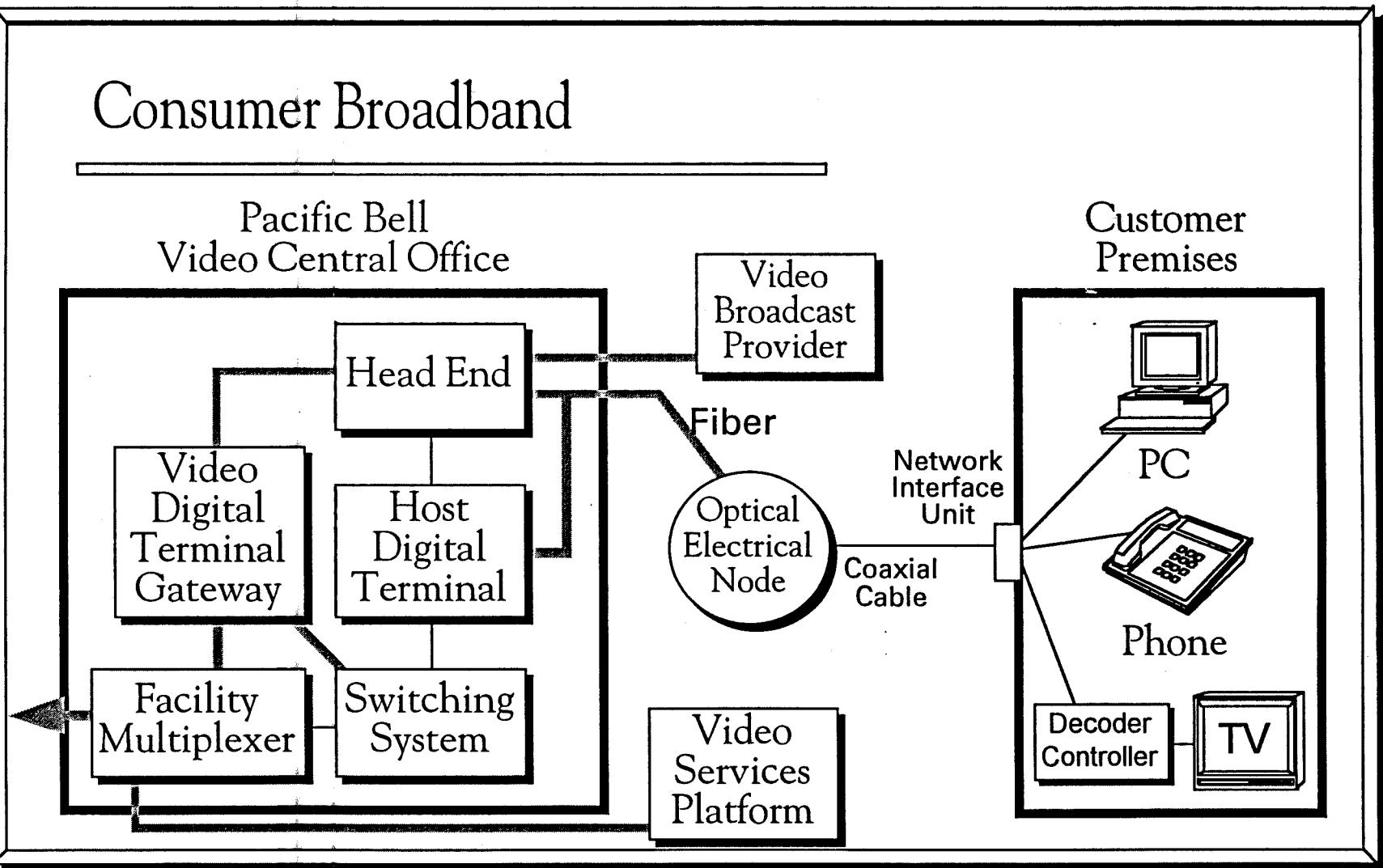
- A full-service broadband network for advanced information & entertainment services.
- A platform for a host of information providers.
- Alternative to existing cable television service.
- Interactive consumer services in education, entertainment, government and healthcare.

Pacific Bell's Announcement

- \$16 Billion investment plan
- Advanced voice, data, and video services
- Platform for cable competition.
- More than 1.5 million homes by 1996
- An Additional 5 million by the year 2000.
- 7 year multi-billion dollar strategic relationship with AT&T

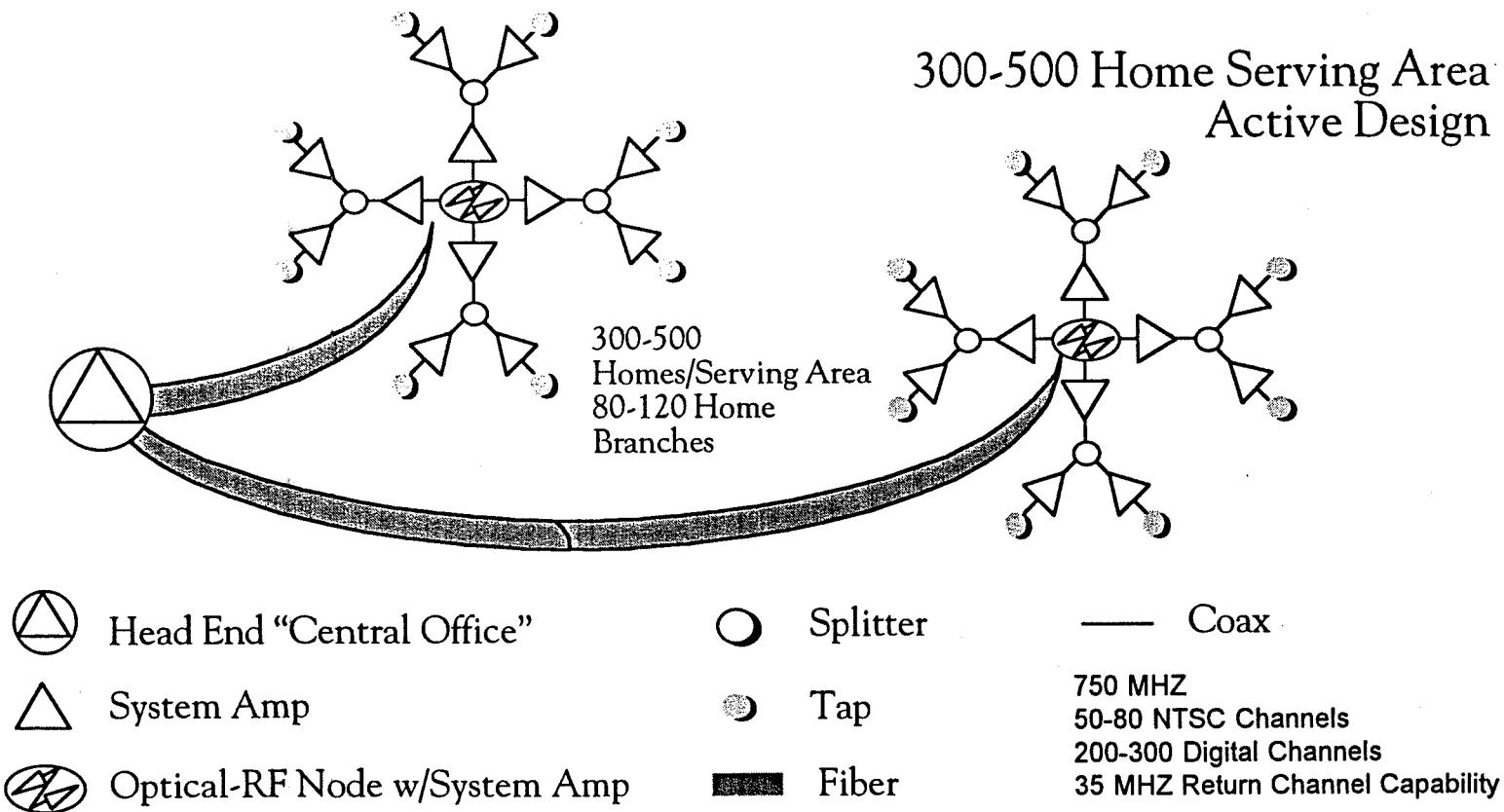
Bringing the Communications Superhighway Home

Consumer Broadband



Bringing the Communications Superhighway Home

Consumer Broadband Architecture - Serving Area Size



Bringing the Communications Superhighway Home

Deployment Plans

